

protrusion 33 breaks open a chamber 31 and introduces the chamber's contents to the sheet 14, thereby releasing or mixing the components of the reaction means.

An additional embodiment of the delivery system is shown in Figure 11. There are various possibilities to constructing a rectangular, flat, and thin delivery system that provides multiple placards and stores tests while making them easy to carry, easy to access on one or more occasions, and durable. In Figure 11, there are five hinges 45. Each hinge 45 breaks off to reveal separate compartments containing assay tests.

From the description above, a number of advantages of the assay test systems of the present invention become evident. Because the assay test is contained within a single device, it is easy to use. For example, in some embodiments, the hinge on the assay test allows the test to be easily used in one step. In other embodiments, the assay test comprises a reaction means which relies on a chemical (*e.g.*, enzymatic), biosensor, or other technology that provides the assay test with fast and accurate detection capabilities, lowers costs, and produces a controlled color or other detectable change. In some embodiments, the assay test has an indicator that ensures reliability by allowing the user to check if enough sample was put on the absorbent material. Also, in other embodiments, the large, easy to see window allows results to be easily read, and the pictorial and written instructions that appear on the assay test and/or delivery system allow results to be easily deciphered and interpreted.

Because the assay test and the delivery system are small and have relatively few parts, in some embodiments, the assay test and delivery system are inexpensive to manufacture. Because the delivery system comprises a rectangular, flat, and thin design, similar in size and shape to a credit card, in some embodiments, it is easy to carry in a wallet, pocket, or purse. Because the delivery system stores multiple assay tests that are protected by their own protective encasements, assay tests are easy to access individually on one or multiple occasions. In some embodiments, the hard material of which the delivery system is constructed protects the assay tests and adds to their durability. In yet other embodiments, the delivery system provides large placards that allow instructions, labels, and warnings to be easily noticed and read.

In some embodiments of the present invention, the delivery system operates by first unlocking the locking mechanism 48. Next, a user folds open the delivery system and removes one assay test enclosed in a protective encasement 72. The encasement 72 is then easily ripped open and an assay test is removed. As shown in Figure 5, a user then saturates an absorbent material 42 on one end of the assay test with a saliva sample. Next, as shown in Figure 6, the user, in one step, folds this saturated end into a well 38 on the opposite part of the test. The folding motion is quick and easy. Depending on the technology impregnated on the sheet 14, the user waits a short period of time. To check if enough saliva was initially put on the absorbent material 42, at the end of the waiting period, the user observes a color change or other detectable signal in the small circular window 22. The absence of a change in the window 22 indicates that enough saliva may not have been initially put on the absorbent material 42, and the assay test should not be used. Finally, the user checks if their saliva analyte concentration level is at or above a specific level by viewing a color change or other detectable signal in the large, easy to read, octagon shaped window 30. To make the assay test easy to decipher, the user compares the color changes or other detectable signals in the windows 22 and 30 to pictorial and written instructions printed on the test 58, 62, 66, and 68, and on the delivery system placards 46, 50, and 54.

In another embodiment of the present invention the delivery system comprises first and second packages. As shown in Figure 14, a first package 102 contains an alcohol concentration test 105. In some embodiments, the first package comprises multiple compartments, each of which contain one or more alcohol concentration tests. The first package 102 comprises a first wall 103 and a second wall 104. The walls may be a single material or may comprises layers of different materials. In some embodiments, the walls comprise an inner layer (*e.g.*, heat sealed plastic or polymer), an intermediate layer (*e.g.*, a foil, polymer, or polymer film [SARAN, BARAX] layer), and an outer layer (*e.g.*, a paper, cardboard, or polymer layer), while in other embodiments, four layer are provided including a tie layer (*e.g.*, a plastic or polymer [polyethylene] layer) between the intermediate layer and outer layer. In some

embodiments, the first package is sealed, preventing exposure of the assay test to the environment. A second package 99 comprises a first wall 100 and a second wall 101. The first and second walls are sealed along three sides. The open end provides an opening for the insertion or removal of one or more of the first packages 102 between the first wall 100 and second wall 101. In preferred embodiments, the second package is the approximate size and shape of a standard credit card. In some preferred embodiments, the first or second wall of the second package further comprises a thumb notch at the unsealed side to facilitate entry or removal of the first packages.

In another embodiment shown in Figure 15, a first package 205 (as described above for first package 102) is enclosed in a second package 200. The second package 200 comprises a first wall 201 with an inner surface 203 and a second wall 202 with an inner surface 204. The first wall 201 and second wall 202 are connected along one edge by a hinge 206. The first package 205 is attached to the inner surface 204 of the second wall 202. When the hinge 206 is in the closed position, the first package 205 is enclosed within the second package 200. When the hinge 206 is in an open position, the first package 205 is accessible.

In another embodiment shown in Figure 16 the delivery system 300 comprises a solid support 301 and an assay test 305 enclosed within a package 302. In some embodiments, the package 302 comprises multiple compartments, each of which contain one or more assay tests. The package comprises a first wall 303 and a second wall 304. The walls may be a single material or may comprises layers of different materials. In some embodiments, the walls comprise a heat sealed plastic inner layer, a foil intermediate layer, and a paper outer layer. In some embodiments, the first package is sealed, preventing exposure of the alcohol concentration test 305 to the environment. The second wall 304 of the package 302 is attached (*e.g.*, glued) to the solid support 301. In preferred embodiments, the delivery system 300 is approximately the size and shape of a standard credit card.

In still other embodiments of the delivery system of the present invention, the delivery system is a rectangular, oval or round cylinder-like storage container, or other desired shape. In some embodiments, it is made of a hard plastic polymer, so that it is